

Oldigs, M., Jorres, R., Magnussen, H. "Acute Effect of Passive Smoking on Lung Function and Airway Responsiveness in Asthmatic Children" Joint Meeting SEP-SEPCR Barbican Centre, London, September, 1990.

SUMMARY: In 11 children with bronchial asthma (age range 8-13 yr, 10 boys, 1 girl) we studied the effect of an one hour exposure at rest during passive cigarette smoking (20 ppm CO) or Sham. Nine of the subjects were on regular therapy with inhaled B2-agonists and DSCG. Both components were withheld at least six hours prior to each study session. Exposure was performed in an environmental chamber. Before and immediately after exposure, lung function and symptom scores were determined. After exposure, a histamine inhalation challenge was performed to determine the concentrations which caused a 100% increase in SRaw, PC100SRaw, and a 20% fall in FEV1, PC20FEV1. Mean (SD) SRaw before and after Sham was 8.7 (3.6) and 9.0 (3.2) cmH20*s, mean FEV1(SD) was 1.97 (0.32) and 1.98 (0.40) l, respectively. Before and after cigarette smoking, mean SRaw (SD) was 10.4 (5.3) and 9.4 (3.3) cmH20*s, mean FEV1 (SD) was 1.95 (0.37) and 1.94 (0.35) l, respectively. Geometric mean (SD) PC100SRaw and PC20FEV1 after Sham was 1.39 (3.0) and 0.70 (2.7) mg/ml, after passive smoking 1.65 (2.5) and 0.96 (2.3) mg/ml respectively. There was no statistical difference in lung function and PC-values between Sham and passive cigarette smoking. The main symptoms during passive smoking were eye and nasopharyngeal irritation. Our observations suggest that in children with mild bronchial asthma one hour of passive cigarette smoking does not cause airway obstruction or changes in bronchial responsiveness.

2024227882